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Michigan Department of Environment, Great Lakes, and Energy Certification under Section 401 of the Federal Clean Water Act

In the matter of: Tower Kleber Limited Partnership

Tower Kleber Hydroelectric Project

Forest and Waverly Townships, Cheboygan County, Michigan

Federal Energy Regulatory Commission Project #10615

The Michigan Department of Environment, Great Lakes, and Energy (EGLE) certifies that the Tower Kleber Limited Partnership (TKLP), Tower Kleber Hydroelectric Project, located upstream and south of Black Lake along the Upper Black River in Forest and Waverly Townships, respectively, in Cheboygan County, Michigan, will comply with the Michigan Water Quality Standards (WQS) provided the conditions set forth in this Certification are met. This Certification is issued to the TKLP under Section 401(a) of the federal Clean Water Act based on its request letter of June 9, 2020, and other information contained in the official files of the EGLE, Water Resources Division. Fish passage and turbine mortality are not addressed by this Certification and will be evaluated during negotiations under Section 10(j) of the federal Power Act (Title 16 of the United States Code, Sections 791a-825r).

Certification Conditions:

- 1.0 TKLP Hydroelectric Project Operational Requirements (see also Section 7.0):
 - 1.1 The TKLP shall maintain the level of the Tower Impoundment at target summer elevation of 722.1 feet and target winter elevation up to one foot less at 721.1 feet National Geodetic Vertical Datum (NGVD). The Kleber Impoundment will be maintained at 701.1 feet NGVD. Fluctuation shall not exceed –/+ 0.25 feet on an annual basis for both dams, except during events beyond the control of the TKLP, including naturally low flows.
 - 1.2 Upon Federal Energy Regulatory Commission (FERC) license issuance, the TKLP shall always operate both hydroelectric projects in a run-of-river mode. Run-of-river means the instantaneous flow downstream of the TKLP Powerhouses shall approximately equal instantaneous inflow to the Tower Impoundment. Run-of-river operation may be temporarily modified if required by operating emergencies beyond the control of the Licensee, during periods where inflows exceed project's hydraulic capacity, or for short periods upon mutual agreement between the Licensee and EGLE. If the flow is so modified, the Licensee shall provide EGLE with documentation of the mutual agreement within 48 hours, and shall notify FERC as soon as possible, but no later than 10 days after each such incident.
 - 1.3 The TKLP shall, within six months of the FERC license issuance, install a calibrated staff gauge referenced to the NGVD, in the Tower and Kleber Impoundments at a location approved by EGLE and clearly visible to the public. The staff gauge shall be accompanied by a sign that shows the operating levels required by Section 1.1 of this Certification. The Impoundments levels shall be

recorded at least hourly. An annual summary report of recorded levels shall be submitted by March 31 of each year to EGLE. In addition, any recorded TKLP Impoundment level data shall be submitted within two business days to EGLE or the Michigan Department of Natural Resources (MDNR), upon request.

- 1.4 The TKLP shall, within one year of the FERC license issuance, provide a plan for approval by EGLE to monitor the flow of the Black River downstream of both TKLP Hydroelectric Projects on an hourly basis. This plan shall be implemented immediately after all approvals required by the FERC license, including EGLE approval, are obtained. The plan shall include annual submission of summary results to EGLE with a copy to the MDNR and a provision for submission of all flow data to EGLE or the MDNR within two business days upon request.
- 1.5 A three-year test period, beginning after the flow monitoring plan in Section 1.4 is developed, shall be used to determine the TKLP's ability to comply with the requirements listed in Sections 1.1, and 1.2 of this Certification. Within 90 days after the end of the three-year test period, the TKLP shall submit a report to EGLE that documents the TKLP's ability to comply with the requirements in Sections 1.1, and 1.2. If EGLE concludes that the TKLP is not able to comply with all of those requirements, then the TKLP shall, within one year and in cooperation with EGLE and the MDNR, develop a corrective action plan and implementation schedule to meet those requirements. The TKLP shall implement the corrective action plan upon approval by EGLE and any other agency specified in the FERC license.
- 1.6 During adverse conditions such as periods of naturally low stream flow when the requirements in Sections 1.1 and 1.2 cannot be met, the TKLP shall, within two business days, consult with EGLE, Gaylord District Supervisor, and the MDNR regarding emergency actions taken or planned to meet the requirements. Consultation during the adverse conditions shall continue following a mutually agreed upon schedule. Upon cessation of the adverse conditions, TKLP shall resume the normal operations.
- 2.0 TKLP Hydroelectric Project Water Quality Limitations:
 - 2.1 The TKLP shall not at any time warm the Black River and Black Lake downstream from the TKLP Hydroelectric Project, by operation of the project, to temperatures in degrees Fahrenheit higher than the following monthly maximum temperatures:

JA	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NO	DEC
Ν								Τ		V	
38	38	43	54	65	68	68	58	63	56	48	40

This Section (2.1) shall not apply when the natural temperatures of the Black River measured upstream of the TKLP Impoundments exceed the above monthly maximum temperatures. In such cases the Black River water temperature downstream from the TKLP dam should not exceed the upstream water temperature.

- 2.2 The TKLP shall not cause the dissolved oxygen (DO) concentration measured in the Black River and Black Lake downstream of the TKLP Hydroelectric Projects, by operation of the project, to be less than 7.0 milligrams per liter at any time.
- 2.3 The compliance point for the temperature and DO limits shall be in the following three locations: (1) Black River upstream of Tower Dam; (2) within 500 feet downstream of the Tower Powerhouse; and (3) within 500 feet of the tailrace of the Kleber Dam; unless upon demonstration by the TKLP, a different compliance point is appropriate and approved by EGLE.
- 2.4 In the event that any of the water quality limitations listed in Sections 2.1 and 2.2 of this certification are not met, the TKLP shall inform EGLE, Gaylord District Supervisor, in writing, within two business days, how they plan to resolve the issue and the expected time frame. The TKLP shall inform EGLE when it is back in compliance.
- 3.0 TKLP Hydroelectric Project Water Quality Monitoring and Reporting:
 - 3.1 The TKLP shall monitor the temperature and DO hourly from June 1 through September 30 at the compliance points downstream of the TKLP Hydroelectric Projects, and at a representative location upstream of the facility (as approved by EGLE per Section 2.3), beginning the first year after the monitoring plan is approved by EGLE.

Temperature and DO profile monitoring shall be conducted in the deepest part of the impoundment every two weeks from June 1 through September 30. Measurements shall be made at 0.5-meter increments or less. Secchi disc depth measurements shall be made at the same time and location as the profiling.

After one year of monitoring, the TKLP may send a written request to EGLE to change the frequency of the temperature and DO monitoring. Alternative monitoring frequencies for temperature and DO may be implemented by the TKLP upon written approval from EGLE.

3.2 Ten years after the issuance of the FERC license and every ten years thereafter, the TKLP shall analyze the sediments in the Impoundment for the following parameters:

Oil and Grease Total Arsenic
Total Cadmium Total Chromium
Total Copper Total Lead
Total Mercury Total Nickel
Total Salanium Total Phoephory

Total Selenium Total Phosphorus

Total Zinc Total PCBs

Total Silver

Other sediment data from the TKLP Hydroelectric Project Impoundment of adequate quality and less than three years old may be substituted upon approval of EGLE.

- 3.3 Beginning one year after the issuance of the FERC license and every ten years thereafter, the TKLP shall monitor the edible portion of fish from the TKLP Impoundment for total mercury and PCBs. The sample shall consist of ten legal size resident predator fish of one species and ten bottom feeder fish of one species that are representative of the sizes normally consumed by anglers. Fish shall be individually analyzed. Other fish tissue data from the Impoundment of adequate quality and less than five years old may be substituted upon approval of EGLE.
- 3.4 The TKLP shall, within six months of the FERC license issuance, submit a plan for approval by EGLE, for the monitoring specified in Sections 3.1-3.3, including consideration of Quality Assurance/Quality Control protocols. All analytical methods used shall be those approved by the United States Environmental Protection Agency pursuant to Title 40 of the Code of Federal Regulations, Part 136, or methods approved by EGLE. An annual report of the data generated to comply with Sections 3.1-3.3 shall be submitted to EGLE within three months of completing the analysis or, for Sections 3.2 and 3.3, within three months of EGLE approval to use other fish tissue or sediment data if such approval is given. The report shall include a summary of quality assurance data.

Monitoring reports shall include, at a minimum, the following provisions:

- A. A determination of the daily minimum, daily average, and daily maximum DO and temperature for each monitoring station. Data shall not be censored. An accounting shall be made for the entire monitoring period. Data gaps shall be fully explained.
- B. An upstream/downstream comparison of the DO and temperature, including the frequency and magnitude of any values that exceed the WQS at each station.
- C. An evaluation of the relation between any observed temperature and DO violations and other environmental factors that were monitored, and operating characteristics of the TKLP Hydroelectric Project.
- 3.5 Alternative frequencies for the monitoring required in this section may be implemented upon written approval from EGLE.
- 4.0 TKLP Hydroelectric Project Bank Erosion Control:
 - 4.1 Within one year of FERC license issuance, the TKLP shall submit and implement a plan to EGLE for a periodic inspection program to promptly identify any new erosion caused by the TKLP Hydroelectric Project. Prior to implementation, the plan shall be approved by EGLE. The plan shall specify the scope of the areas to be inspected, the criteria for identifying erosion needing corrective measures, and prompt action when corrective measures are needed. The plan shall be effective immediately following all approvals required in the FERC license.
- 5.0 TKLP Hydroelectric Project Natural Organic Debris Maintenance:

- 5.1 The TKLP shall, within one year of the issuance of the FERC license, develop and submit for approval by EGLE, a plan to pass natural debris (logs, stumps, sticks, limbs, leaves) collected on the trash racks and log booms over the Dam. The TKLP shall remove and properly dispose of all other materials collected in the trash racks and spill gates including aquatic plants. The plan shall include appropriate safety provisions and a schedule for implementation.
- 6.0 TKLP Hydroelectric Project Schedule Modification:
 - 6.1 EGLE may modify the specified implementation schedules within this Certification upon written request from the TKLP, in the event the TKLP, despite its good faith effort, is unable to meet the schedules specified within this Certification because of events beyond its control.
- 7.0 TKLP Hydroelectric Project Temporary Modification of Operational Requirements:
 - 7.1 Operational requirements specified in Section 1.0 of this Certification may be temporarily suspended for completion of necessary inspections, maintenance activities, dam safety activities, or in response to emergency requests from government agencies provided that prior written approval is obtained from EGLE, Gaylord District Supervisor, and the MDNR.
- 8.0 TKLP Hydroelectric Project Natural Resource Damages and Penalties:
 - 8.1 The state reserves the right to seek civil and/or criminal penalties and liabilities under applicable law for natural resource damages that may occur.
- 9.0 TKLP Hydroelectric Project Permits and Approvals:
 - 9.1 The issuance of this Certification does not authorize violation of any federal, state, or local laws or regulations, nor does it obviate the necessity of obtaining such permits, including any EGLE permits, or approvals from other units of government as may be required by law. For all proposed drawdowns and refills for dam maintenance purposes, the TKLP shall obtain any necessary state of Michigan permits.
- 10.0 TKLP Hydroelectric Project Right of Entry:
 - 10.1 The TKLP shall allow EGLE, or any agent appointed by EGLE, upon the presentation of credentials, to enter upon the TKLP premises at reasonable times, to have access to, and copy any records required to be kept under the conditions of this Certification, and to inspect the facilities or to conduct any environmental sampling. EGLE agents shall comply with TKLP personnel safety requirements while on TKLP property unless more stringent safety procedures are required by the State of Michigan.
- 11.0 TKLP Hydroelectric Project Changes:

- 11.1 The TKLP shall provide written notification to EGLE and a copy to the MDNR within ten days of any change that has occurred or may occur in the structures or operation of the TKLP Hydroelectric Project, which may affect compliance with this Certification or the WQS.
- 12.0 TKLP Hydroelectric Project Revocation:
 - 12.1 If EGLE determines that the TKLP Hydroelectric Project can no longer comply with Section 401(a) of the Clean Water Act and the WQS, this Certification may be revoked or modified after appropriate notice.

The contact points for consultations, approvals, and submittal of plans and reports as referred to in this document are as follows:

EGLE Supervisor, Lake Michigan Unit

Surface Water Assessment Section

P.O. Box 30458

Lansing, Michigan 48909-7958

Phone: 517-230-7548

Gaylord District Supervisor

2100 West M-32

Gaylord, Michigan 49735-2982

Phone: 989-731-4920

MDNR Habitat Management Unit

Fisheries Division 1732 M-32 W

Gaylord, Michigan 49735 Phone: 989-370-1163

Issued this xxx day of September 2021, by EGLE, and shall expire at the end of the FERC license period.

Michael Alexander, Manager

Surface Water Assessment Section

Water Resources Division

EGLE